

## TECHNICAL DATA SHEET

### CyFlow™ CD54 Azide Free Anti-Hu; Clone 1H4

**REF** AM123144

**For Research Use Only.**

**Not for use in diagnostic or therapeutic procedures.**

### Specifications

<b>Antigen</b>	CD54
<b>Alternative Names</b>	ICAM-1
<b>Clone</b>	1H4
<b>Clonality</b>	monoclonal
<b>Format</b>	Azide Free
<b>Host / Isotype</b>	Mouse / IgG2b
<b>Species Reactivity</b>	Human
<b>Negative Species Reactivity</b>	—
<b>Quantity [Concentration]</b>	0.1 mg [ 1 mg/ml ]
<b>Immunogen</b>	Raji cells and spleen cells fused with NS1 cells

### Specificity

The mouse monoclonal antibody 1H4 recognizes CD54 antigen, a 85-110 kDa type I transmembrane glycoprotein (receptor for rhinovirus) expressed on activated endothelial cells, T lymphocytes, B

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lymphocytes, monocytes, macrophages, granulocytes and dendritic cells; the expression of CD54 is upregulated by activation.

## Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Western blot
- Immunohistochemistry
- Immunocytochemistry

## Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH  $\approx$ 7.4; 0.2  $\mu$ m filter sterilized.

## Storage and Stability

<b>Storage</b>	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
<b>Stability</b>	Do not use after expiration date stamped on vial label.

## Background Information

CD54 (ICAM-1) is a 90 kD member of the C2 subset of immunoglobulin superfamily. It is a transmembrane molecule with 7 potential N-glycosylated sites, expressed on resting monocytes and endothelial cells and can be upregulated on many other cells, e.g. with lymphokines, on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes, chondrocytes, as well as epithelial cells. CD54 mediates cell adhesion by binding to integrins CD11a/CD18 (LFA-1) and to CD11b/CD18 (Mac-1). The interaction of CD54 with LFA-1 enhances antigen-specific T-cell activation.

## References

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- Ockenhouse CF, Betageri R, Springer TA, Staunton DE: Plasmodium falciparum-infected erythrocytes bind ICAM-1 at a site distinct from LFA-1, Mac-1, and human rhinovirus. Cell. 1992 Jan 10; 68(1):63-9. < PMID: 1346257 >
- Williams DT, Chaudhry Y, Goodfellow IG, Lea S, Evans DJ: Interactions of decay-accelerating factor (DAF) with haemagglutinating human enteroviruses: utilizing variation in primate DAF to map virus binding sites. J Gen Virol. 2004 Mar; 85(3):731-8. < PMID: 14993659 >

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The Safety Data Sheet for this product is available at [www.sysmex-partec.com/services](http://www.sysmex-partec.com/services).

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